

Appln. No. 10/674,228  
Reply to Office action of March 2, 2006  
Response dated April 28, 2006

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No. : 10/674,228 Confirmation No.: 1891  
Applicant. : HANASH et al.  
Filed : September 29, 2003  
TC/A.U. : 1642  
Examiner : Misook Yu  
Docket No. : 108140.00015  
Customer No. : 38485  
For : METHOD FOR IDENTIFICATION OF CELLULAR PROTEIN  
ANTIGENS AND PRESENCE OF ANTIBODIES TO SPECIFIC  
CELLULAR PROTEIN ANTIGENS IN SERUM

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE**

Sir:

This paper is submitted in response to the Office action dated March 2, 2006.

**Amendments to the Claims** begin on page 2 of this paper.

**Remarks** begin on page 4 of this paper.

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (Currently Amended)     A method for identifying proteins, to which a subject with cancer produces autoantibodies, said method ~~comprising~~ consisting essentially of: (a) extracting proteins from a sample of cells; (b) separating the extracted proteins by two-dimensional electrophoresis; (c) transferring the proteins separated by two-dimensional electrophoresis to a membrane; (d) incubating the membrane with serum from a subject known to have the cancer; (e) detecting the proteins to which autoantibodies in the patients serum have bound; and (f) comparing the proteins to which antibodies in the subject's serum sample bind to proteins to which antibodies in control serum sample bind, wherein those proteins bound by antibodies in the subject's serum but not the control serum are identified as proteins to which a subject with cancer produces autoantibodies.

Claim 2 (original)             The method of claim 1 wherein the sample of cells is derived from the subject's tumor.

Claim 3 (original)             The method of claim 1 wherein the sample of cells is derived from a continuous cell line representative of the subject's tumor.

Claim 4 (original)             The method of claim 1 wherein the step of detecting the proteins to which autoantibodies in the subject's serum sample have bound comprises the use of a signal-

generating component bound to an antibody that is specific for antibodies in the subject's sample.

Claims 5-21 (Canceled)

**REMARKS**

This paper is filed in response to the Office Action dated March 2, 2006.

By this amendment, Applicants confirm the election of Claims 1-4 on the merits and hereby cancel Claims 5-21 without prejudice. Applicants expressly reserve the right to file the subject matter of canceled Claims 5-21 in one or more divisional applications.

Claims 1-4 remain rejected under 35 U.S.C. §102(b) as anticipated by Hirsch et al. The Examiner contends that the use of “comprising” in the claims does not exclude any unrecited steps or elements, in particular, the one-dimensional gel electrophoresis method of Hirsch et al. to first identify proteins in Hodgkins disease that are then subject to further characterization by a 2D electrophoresis step.

Applicants have amended Claim 1 to replace the transitional “comprising” with “consisting essentially of,” which excludes the one-dimensional gel electrophoresis step of Hirsch et al. from the claimed method.

In view of the amendment to Claim 1 and the remarks herein, Applicants believe the present application is in condition for allowance of Claims 1-4.

Applicants believe that no additional fees are required in connection with this response. However, if additional fees are required, the Commissioner is hereby authorized to charge any

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additional payment, or credit any overpayment, to Deposit Account No. 01-2300,  
**referencing Docket Number 108140.00015.**

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Rochelle K. Seide". The signature is written in a cursive, flowing style. The first name "Rochelle" is written in a larger, more prominent script, followed by "K." and "Seide". The signature is positioned above a horizontal line.

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# **FEE CALCULATION**

Any additional fee required has been calculated as follows:

**X** If checked, "Small Entity" status is claimed.

	(Column 1)	(Column 2)	(Column 3)	SMALL ENTITY		OR	LARGE ENTITY	
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADD'L FEE		RATE	ADD'L FEE
TOTAL CLAIMS	4 MINUS	21	= 0	x \$25	\$0.00		x \$50	\$
INDEP CLAIMS	1 MINUS	3	= 0	x \$100	\$0.00		x \$200	\$
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				+ \$180	\$0.00	OR	+ \$360	\$
					\$0.00			\$

The U.S. Patent and Trademark Office is hereby authorized to charge and deficiency or credit any overpayment of fees associated with this communication to Deposit Account No. 01-2300 referencing docket number 108140.00015.